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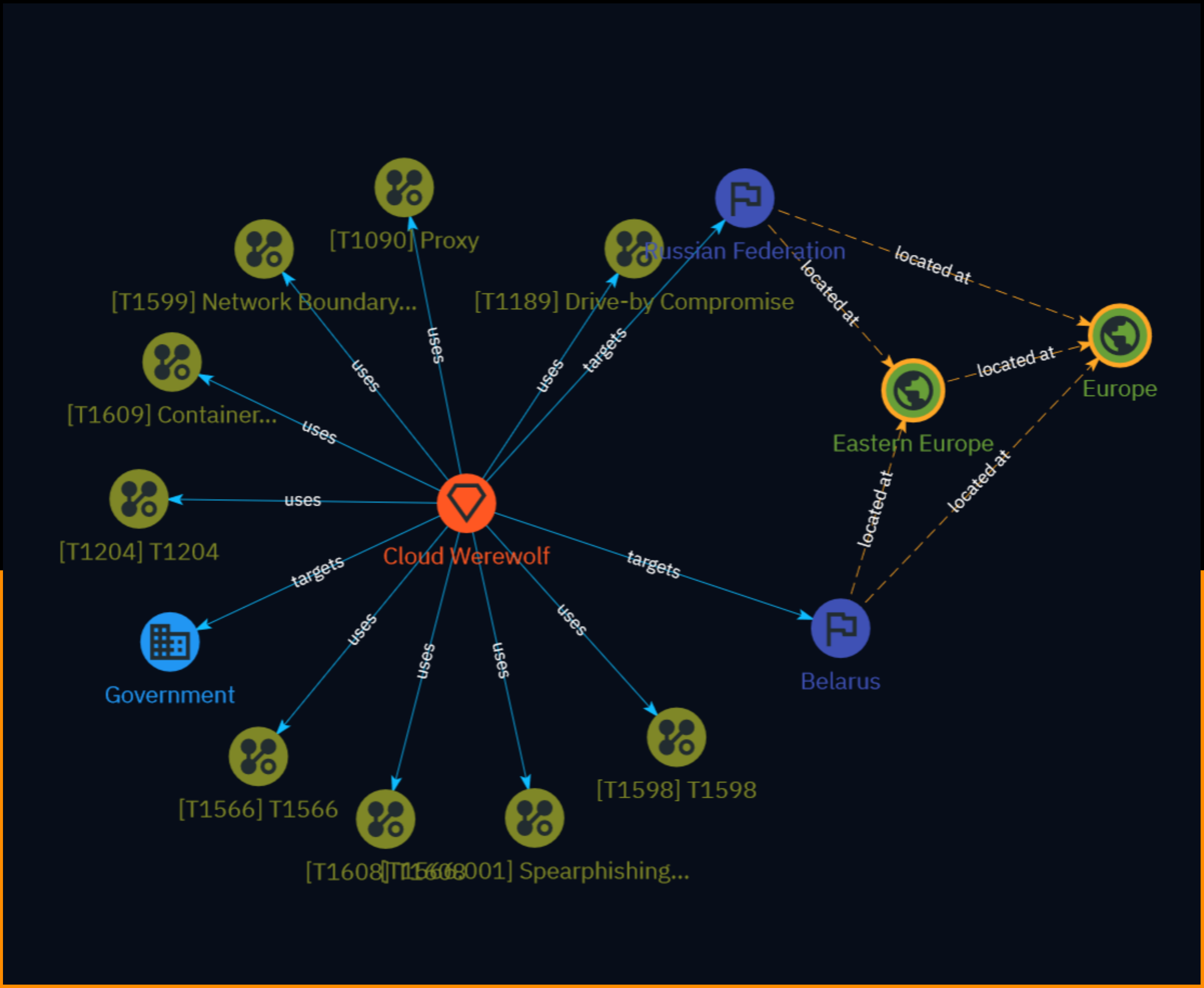
NETMANAGEIT

Intelligence Report

Cloud Werewolf attacks government officials in Russia and Belarus



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Overview

Description

A cyberthreat group, identified as Cloud Werewolf, is conducting phishing campaigns targeting government employees in Russia and Belarus. The adversaries employ crafted emails mimicking legitimate documents, such as medical vouchers and federal orders, to lure victims into downloading malicious payloads. These payloads are hosted on remote servers, and their distribution is limited, allowing the threat actors to evade cybersecurity defenses within the targeted organizations.

Confidence

This value represents the confidence in the correctness of the data contained within this report.

100 / 100

Content

N/A

Intrusion-Set

Name
Cloud Werewolf

Attack-Pattern

Name
Drive-by Compromise
ID
T1189
Description
Adversaries may gain access to a system through a user visiting a website over the normal course of browsing. With this technique, the user's web browser is typically targeted for exploitation, but adversaries may also use compromised websites for non-exploitation behavior such as acquiring [Application Access Token](https://attack.mitre.org/techniques/T1550/001). Multiple ways of delivering exploit code to a browser exist (i.e., [Drive-by Target](https://attack.mitre.org/techniques/T1608/004)), including: * A legitimate website is compromised where adversaries have injected some form of malicious code such as JavaScript, iFrames, and cross-site scripting * Script files served to a legitimate website from a publicly writeable cloud storage bucket are modified by an adversary * Malicious ads are paid for and served through legitimate ad providers (i.e., [Malvertising](https://attack.mitre.org/techniques/T1583/008)) * Built-in web application interfaces are leveraged for the insertion of any other kind of object that can be used to display web content or contain a script that executes on the visiting client (e.g. forum posts, comments, and other user controllable web content). Often the website used by an adversary is one visited by a specific community, such as government, a particular industry, or region, where the goal is to compromise a specific user or set of users based on a shared interest. This kind of targeted campaign is often referred to a strategic web compromise or watering hole attack. There are several known examples of this occurring.(Citation: Shadowserver Strategic Web Compromise) Typical drive-by compromise process: 1. A user visits a website that is used to host the adversary controlled content. 2. Scripts automatically execute, typically searching versions of the browser and plugins for a potentially vulnerable

version. * The user may be required to assist in this process by enabling scripting or active website components and ignoring warning dialog boxes. 3. Upon finding a vulnerable version, exploit code is delivered to the browser. 4. If exploitation is successful, then it will give the adversary code execution on the user's system unless other protections are in place. * In some cases a second visit to the website after the initial scan is required before exploit code is delivered. Unlike [Exploit Public-Facing Application](https://attack.mitre.org/techniques/T1190), the focus of this technique is to exploit software on a client endpoint upon visiting a website. This will commonly give an adversary access to systems on the internal network instead of external systems that may be in a DMZ. Adversaries may also use compromised websites to deliver a user to a malicious application designed to [Steal Application Access Token](https://attack.mitre.org/techniques/T1528)s, like OAuth tokens, to gain access to protected applications and information. These malicious applications have been delivered through popups on legitimate websites.(Citation: Volexity OceanLotus Nov 2017)

Name

T1598

ID

T1598

Description

Adversaries may send phishing messages to elicit sensitive information that can be used during targeting. Phishing for information is an attempt to trick targets into divulging information, frequently credentials or other actionable information. Phishing for information is different from [Phishing](https://attack.mitre.org/techniques/T1566) in that the objective is gathering data from the victim rather than executing malicious code. All forms of phishing are electronically delivered social engineering. Phishing can be targeted, known as spearphishing. In spearphishing, a specific individual, company, or industry will be targeted by the adversary. More generally, adversaries can conduct non-targeted phishing, such as in mass credential harvesting campaigns. Adversaries may also try to obtain information directly through the exchange of emails, instant messages, or other electronic conversation means.(Citation: ThreatPost Social Media Phishing)(Citation: TrendMictro Phishing)(Citation: PCMag FakeLogin)(Citation: Sophos Attachment)(Citation: GitHub Phishery) Victims may also receive phishing messages that direct them to call a phone number where the adversary attempts to collect confidential information.(Citation: Avertium callback phishing) Phishing for information frequently involves social engineering techniques, such as posing as a source with a reason to collect information (ex: [Establish Accounts](https://attack.mitre.org/techniques/T1585) or [Compromise Accounts](https://attack.mitre.org/techniques/T1586)) and/or sending multiple, seemingly urgent messages. Another way to accomplish this is by forging or spoofing(Citation: Proofpoint-spoof) the identity of the sender which can be used to fool both the human recipient as well as automated security tools.(Citation: cyberproof-double-bounce) Phishing for information may also involve evasive techniques, such as removing or manipulating emails or metadata/headers from compromised accounts being abused to send messages (e.g., [Email Hiding Rules](https://attack.mitre.org/techniques/T1564/008)).(Citation: Microsoft OAuth Spam 2022)(Citation: Palo Alto Unit 42 VBA Infostealer 2014)

Name

Network Boundary Bridging

ID

T1599

Description

Adversaries may bridge network boundaries by compromising perimeter network devices or internal devices responsible for network segmentation. Breaching these devices may enable an adversary to bypass restrictions on traffic routing that otherwise separate trusted and untrusted networks. Devices such as routers and firewalls can be used to create boundaries between trusted and untrusted networks. They achieve this by restricting traffic types to enforce organizational policy in an attempt to reduce the risk inherent in such connections. Restriction of traffic can be achieved by prohibiting IP addresses, layer 4 protocol ports, or through deep packet inspection to identify applications. To participate with the rest of the network, these devices can be directly addressable or transparent, but their mode of operation has no bearing on how the adversary can bypass them when compromised. When an adversary takes control of such a boundary device, they can bypass its policy enforcement to pass normally prohibited traffic across the trust boundary between the two separated networks without hinderance. By achieving sufficient rights on the device, an adversary can reconfigure the device to allow the traffic they want, allowing them to then further achieve goals such as command and control via [Multi-hop Proxy](https://attack.mitre.org/techniques/T1090/003) or exfiltration of data via [Traffic Duplication](https://attack.mitre.org/techniques/T1020/001). Adversaries may also target internal devices responsible for network segmentation and abuse these in conjunction with [Internal Proxy](https://attack.mitre.org/techniques/T1090/001) to achieve the same goals.(Citation: Kaspersky ThreatNeedle Feb 2021) In the cases where a border device separates two separate organizations, the adversary can also facilitate lateral movement into new victim environments.

Name

T1608

ID

T1608

Description

Adversaries may upload, install, or otherwise set up capabilities that can be used during targeting. To support their operations, an adversary may need to take capabilities they developed ([Develop Capabilities](https://attack.mitre.org/techniques/T1587)) or obtained ([Obtain Capabilities](https://attack.mitre.org/techniques/T1588)) and stage them on infrastructure under their control. These capabilities may be staged on infrastructure that was previously purchased/rented by the adversary ([Acquire Infrastructure](https://attack.mitre.org/techniques/T1583)) or was otherwise compromised by them ([Compromise Infrastructure](https://attack.mitre.org/techniques/T1584)). Capabilities may also be staged on web services, such as GitHub or Pastebin, or on Platform-as-a-Service (PaaS) offerings that enable users to easily provision applications.(Citation: Volexity Ocean Lotus November 2020)(Citation: Dragos Heroku Watering Hole)(Citation: Malwarebytes Heroku Skimmers)(Citation: Netskope GCP Redirection)(Citation: Netskope Cloud Phishing) Staging of capabilities can aid the adversary in a number of initial access and post-compromise behaviors, including (but not limited to): * Staging web resources necessary to conduct [Drive-by Compromise](https://attack.mitre.org/techniques/T1189) when a user browses to a site.(Citation: FireEye CFR Watering Hole 2012)(Citation: Gallagher 2015)(Citation: ATT ScanBox) * Staging web resources for a link target to be used with spearphishing.(Citation: Malwarebytes Silent Librarian October 2020)(Citation: Proofpoint TA407 September 2019) * Uploading malware or tools to a location accessible to a victim network to enable [Ingress Tool Transfer](https://attack.mitre.org/techniques/T1105).(Citation: Volexity Ocean Lotus November 2020) * Installing a previously acquired SSL/TLS certificate to use to encrypt command and control traffic (ex: [Asymmetric Cryptography](https://attack.mitre.org/techniques/T1573/002) with [Web Protocols](https://attack.mitre.org/techniques/T1071/001)).(Citation: DigiCert Install SSL Cert)

Name

Container Administration Command

ID

T1609

Description

Adversaries may abuse a container administration service to execute commands within a container. A container administration service such as the Docker daemon, the Kubernetes API server, or the kubelet may allow remote management of containers within an environment.(Citation: Docker Daemon CLI)(Citation: Kubernetes API)(Citation: Kubernetes Kubelet) In Docker, adversaries may specify an entrypoint during container deployment that executes a script or command, or they may use a command such as `docker exec` to execute a command within a running container.(Citation: Docker Entrypoint)(Citation: Docker Exec) In Kubernetes, if an adversary has sufficient permissions, they may gain remote execution in a container in the cluster via interaction with the Kubernetes API server, the kubelet, or by running a command such as `kubectl exec`.(Citation: Kubectl Exec Get Shell)

Name

Proxy

ID

T1090

Description

Adversaries may use a connection proxy to direct network traffic between systems or act as an intermediary for network communications to a command and control server to avoid direct connections to their infrastructure. Many tools exist that enable traffic redirection through proxies or port redirection, including [HTRAN](https://attack.mitre.org/software/S0040), ZXProxy, and ZXPortMap. (Citation: Trend Micro APT Attack Tools) Adversaries use these types of proxies to manage command and control communications, reduce the number of simultaneous outbound network connections, provide resiliency in the face of connection loss, or to ride over existing trusted communications paths between victims to avoid suspicion. Adversaries may chain together multiple proxies to further disguise the source of malicious traffic. Adversaries can also take advantage of routing schemes in Content Delivery Networks (CDNs) to proxy command and control traffic.

Name
T1566
ID
T1566
Description
Adversaries may send phishing messages to gain access to victim systems. All forms of phishing are electronically delivered social engineering. Phishing can be targeted, known as spearphishing. In spearphishing, a specific individual, company, or industry will be targeted by the adversary. More generally, adversaries can conduct non-targeted phishing, such as in mass malware spam campaigns. Adversaries may send victims emails containing malicious attachments or links, typically to execute malicious code on victim systems. Phishing may also be conducted via third-party services, like social media platforms. Phishing may also involve social engineering techniques, such as posing as a trusted source, as well as evasive techniques such as removing or manipulating emails or metadata/headers from compromised accounts being abused to send messages (e.g., [Email Hiding Rules](https://attack.mitre.org/techniques/T1564/008)).(Citation: Microsoft OAuth Spam 2022)(Citation: Palo Alto Unit 42 VBA Infostealer 2014) Another way to accomplish this is by forging or spoofing(Citation: Proofpoint-spoof) the identity of the sender which can be used to fool both the human recipient as well as automated security tools.(Citation: cyberproof-double-bounce) Victims may also receive phishing messages that instruct them to call a phone number where they are directed to visit a malicious URL, download malware,(Citation: sygnia Luna Month)(Citation: CISA Remote Monitoring and Management Software) or install adversary-accessible remote management tools onto their computer (i.e., [User Execution](https://attack.mitre.org/techniques/T1204)).(Citation: Unit42 Luna Moth)
Name
T1204

ID
T1204
Description
An adversary may rely upon specific actions by a user in order to gain execution. Users may be subjected to social engineering to get them to execute malicious code by, for example, opening a malicious document file or link. These user actions will typically be observed as follow-on behavior from forms of [Phishing](https://attack.mitre.org/techniques/T1566). While [User Execution](https://attack.mitre.org/techniques/T1204) frequently occurs shortly after Initial Access it may occur at other phases of an intrusion, such as when an adversary places a file in a shared directory or on a user's desktop hoping that a user will click on it. This activity may also be seen shortly after [Internal Spearphishing](https://attack.mitre.org/techniques/T1534). Adversaries may also deceive users into performing actions such as enabling [Remote Access Software](https://attack.mitre.org/techniques/T1219), allowing direct control of the system to the adversary, or downloading and executing malware for [User Execution](https://attack.mitre.org/techniques/T1204). For example, tech support scams can be facilitated through [Phishing](https://attack.mitre.org/techniques/T1566), vishing, or various forms of user interaction. Adversaries can use a combination of these methods, such as spoofing and promoting toll-free numbers or call centers that are used to direct victims to malicious websites, to deliver and execute payloads containing malware or [Remote Access Software](https://attack.mitre.org/techniques/T1219).(Citation: Telephone Attack Delivery)

Name
Spearphishing Attachment
ID
T1566.001
Description
Adversaries may send spearphishing emails with a malicious attachment in an attempt to gain access to victim systems. Spearphishing attachment is a specific variant of spearphishing. Spearphishing attachment is different from other forms of spearphishing in that it employs the use of malware attached to an email. All forms of spearphishing are

electronically delivered social engineering targeted at a specific individual, company, or industry. In this scenario, adversaries attach a file to the spearphishing email and usually rely upon [User Execution](https://attack.mitre.org/techniques/T1204) to gain execution. Spearphishing may also involve social engineering techniques, such as posing as a trusted source. There are many options for the attachment such as Microsoft Office documents, executables, PDFs, or archived files. Upon opening the attachment (and potentially clicking past protections), the adversary's payload exploits a vulnerability or directly executes on the user's system. The text of the spearphishing email usually tries to give a plausible reason why the file should be opened, and may explain how to bypass system protections in order to do so. The email may also contain instructions on how to decrypt an attachment, such as a zip file password, in order to evade email boundary defenses. Adversaries frequently manipulate file extensions and icons in order to make attached executables appear to be document files, or files exploiting one application appear to be a file for a different one.

Country

Name
Russian Federation

Name
Belarus

Region

Name
Eastern Europe

Name
Europe

Sector

Name
Government
Description
Civilian government institutions and administrations of the executive and legislative branches. The diplomatic and judicial branches are not included.

External References

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